LXII.—New Hymenoptera Aculeata taken by the Swedish Zoological Expedition to Egypt and the White Nile in the Spring of 1901. By F. D. MORICE, M.A., F.E.S.

Nomia tegulata, Smith. 3.

Feminæ similis; sed abdomíne crassius punctato; scutello utrinque in spinam magnam compressam acutam (scapo antennæ fere æquilongam) producto. Pedes simplices.

Long. circ. 7 mill.

" Abba Eiland, 12 ii. '01."

This is not the male doubtfully assigned by M. Vachal (Miscell. Entomol. 1897) to tegulata, Smith, which has a simple scutellum, dilated leg-joints, &c., and is also differently coloured from the present insect. But I feel little doubt as to the determination of the latter. It was taken along with three females which exactly agree with Smith's types of tegulata in the South Kensington Museum, and the only characters by which it differs from them appear to me to be merely sexual. These types are all females; the author did not know the male, and it has not, I believe, been described till now.

The flagellum, mandibles, tegulæ (except their membranous apices), knees, extreme apex of hind tibiæ, and tarsi are rufescent, as are also more or less (but obscurely) the extreme base and sides of the abdomen and the extreme apices of its The face is wide, with strongly converging eyes, which reach close to the bases of the mandibles. The head, mesonotum, and scutellum, viewed dorsally, are dull, finely rugulose, and with shallow scattered punctures. The face, pronotum above, extreme basal and apical margins of the mesonotum, and the whole postscutellum are clothed with a very dense short whitish pubescence. The scutellum is naked and its lateral margins are produced into a pair of long, compressed, sharply pointed thorns (much as in Myrmica ruginodis), which rise gradually above the level of the rest of the scutellum, commencing at its base, and extend far beyond it in the apical direction. Their whole length is about two thirds that of the tegulæ, and of this length about one half projects over the postscutellum &c., the other half forming a lateral border to the scutellum itself. The propodeum has a short costate sulcature along its basal margin; its "area trigona" is not definitely separated from the lateral areas except by being perfectly smooth and very shining, while

they are strongly and closely punctured throughout. The mesopleuræ are somewhat rugosely punctured and the metapleuræ show a fine longitudinal striation. The first abdominal segment is largely and irregularly punctured above, the second also irregularly but not so largely, those following more finely and closely. The impressed apices of all the segments are narrowly fasciated or ciliated with whitish hairs, and there is a similar narrow fascia at the base of the second segment. The head, thorax, and bases of the legs (including the femora) are clothed beneath with moderately long white hairs; those on the tibiæ and tarsi are also white, but shorter. The posterior ocelli are about as far from each other as from the compound eyes. The legs and antennæ seem perfectly simple: in the latter joints 4 to 12 are about equal and about as broad as long; joints 3 and 13 are a little longer than the others, about half as long as the scape. The wings are hyaline, with fuscous nervures and slightly clouded apices.

Crocisa Jäzerskiöldi, sp. n., ♂♀.

Nigra vel obscure cyanescens, pilositate alba (partim strata ac subsquamosa, et in certis aspectibus plus minusve cærulescente),

opulentissime variegata.

Forma scutelli (apice sinuose emarginati et in medio profunde angulatim excisi) Crocisæ scutellari proxima; sed differt pilositate magis ut in C. ramosa disposita (mesonoti vittis lateralibus integris, abdominis segmenti primi basi vix interrupte fasciata etc.). Magnitudine utramque speciem multo superat (18–20 mill. long.!), et ab omnibus mihi quidem cognitis Crocisis differt scutelli ipsius disco in utroque angulo laterali-basali macula bene definita pilositatis cærulescenti-albæ ornato.

d. Abdominis segmentum dorsale septimum apice utrinque dentato,

inter hos dentes fere recte truncato.

Antennarum articulus 3^{us} in utroque sexu 4^{to} fere sesquilongior.

"Khartum: &, 2 i. '01; \$, 3. i. '01."

Examples which, I think, belong to this very large and handsome species are placed in the British Museum with others, apparently not belonging to it, under the name scutellaris, F. But what recent authors (e. g. Friese in 'Bienen Europa's') identify with Fabricius's species is a much smaller and less striking-looking insect, with snow-white markings, naked scutellum, and nearly naked base to the first abdominal segment.

In Jägerskiöldi the white pilosity in both sexes is very copious, arranged almost exactly as in ramosa, but with a peculiar bluish reflection in certain lights which distinguishes

it at a glance from any European species. The actual hairs seem, however, to be pure white, and it is only where they are prostrate that the blue effect appears. I imagine that the underlying or surrounding subcyaneous chitin is either seen through them or reflected by them in some way (the tint is just that produced by a thin layer of Chinese white over a wash of black or dark blue paint).

The almost complete absence of reliable structural characters, even in the males, makes the proposal of new Crocisa species risky and unsatisfactory; but as I can find no description which at all suits the present insects, and as Herr Friese, to whom I sent the specimens, returns them as unknown to him,

I have ventured to describe them as new.

The bluish-white hair-patches on the scutellum itself are a very peculiar character, this part in Crocisa being otherwise, so far as I know, always immaculate. They are very large and subquadrate in the male, smaller and rounder in the female. The other pilose ornaments of the thorax and also those of the abdomen are arranged exactly as in ramosa, differing only in looking bluish, as described above. On the legs they are not blue, and (by contrast, I suppose) look even a little yellowish.

Rhynchium Sirdari, sp. n. 3.

Colore omnino ut synagroides, sed structura alia. Clypeus semicirculariter emarginatus, angulis apicalibus spiniformibus, longitudine sua evidenter latior. Mandibulæ validæ, latæ, minus quam in synagroide elongatæ; margine apicali dentibus 2 in medio instructo, contiguis quidem sed bene distinctis, quorum exterior interiore duplo longius. Postscutellum, a latere visum, acute conicum: area huius basalis vel horizontalis brevis, crasse punctata, et in medio carina alta longitudinali, vel dente compresso, armata. Abdominis segmenti secundi pars ventralis, ut in synagroide, basi subbituberculata; sed disco læviore, punctis sparsis, magnis quidem sed minime profundis.

Long. circ. 26 mill.

Khartum, 31 i. '01.

The semicircularly emarginate clypeus, with its long spine-like angles, at once distinguishes this species from ardens of as described by Saussure, and also from specimens called abyssinicum of in the South Kensington Museum, which (like abyssinicum ?) have a subtruncate clypeus. From synagroides of it differs in having the clypeus evidently wider than long, the mandibles stouter, and the teeth on their apical margin better developed. Also in synagroides the ventral surface of the second abdominal segment is far more

strongly and deeply punctured. There is no male called ardens at South Kensington, and only one female, which is exceedingly unlike Sirdari in having its clypeus particularly

narrow and elongate, with a subtruncate apex.

In Sirdari (at least, in the specimen before me) the orange colour extends from the apex of the abdomen to beyond the apex of the third segment, whereas De Saussure describes that segment as "black" simply, alike in synagroides, abysssnicum, and ardens; but this is probably a variable character, and might appear in any of the species in question.

Odynerus (Ancistrocerus?) aberraticus, sp. n. 3.

Antennarum apices uncinato-reflexi. Abdominis segmentum 1^{um} basin versus fortissime transverse cristatum; valde petioliforme—scilicet longissimum, apicem versus lenissime dilatatum, ibique segmento 2^{do} rotundate-campaniformi saltem duplo

angustius.

Clypei apex triangulariter excisus. Pronotum angulis inermibus. Scutellum longum, fere quadratum. Postscutellum fere in formam cristæ elevatum. Propodeum in medio late ac profunde excavatum, areæ eiusdem laterales postice conice eminentes et sub apicibus suis breviter quidem sed acute denticulatæ. Abdominis segmenti 2^{di} pars ventralis tumidissima, quam dorsum non minus convexa, sulco costato basali pæne nullo.

Clypeus, mandibulæ, scapus antice, pronoti anguli interni, maculæ duo postscutelli pæne confluentes, pedes infra cum tibiis tarsisque totis flava. Tegulæ flavæ, nigro-notatæ. Abdominis segmenti primi apex (in dorso) anguste, secundi (et in dorso et in ventre) latius, flavo-fasciati. Reliquorum segmentorum apices plus

minusve obsolete flavo picti, vel omnino nigrantes.

Caput, thorax cum propodeo, abdominisque 3 segmenta basalia satis crasse denseque punctata, subopaca: segmentorum reliquorum punctatura magis obsoleta. Latera petioli pilis albidis erectis fimbriata, dorsum eiusdem nudum. Facies et pectus strato-argenteo-subpilosus. Abdominis segmentum secundum brevissime strato-sericeo-pubescens.

Long. circ. 7 mill.

Three males, "Abba Eiland, 12 ii. '01."

I feel some hesitation in treating this curious little species as an Ancistrocerus, but I do not know where else to place it. Herr Kohl, who kindly examined it at my request, suggests that it may be a new species of Nortonia, Sauss. It does not, however, appear to me to agree at all with De Saussure's diagnosis of his genus, and is utterly unlike the species which he names as his "type" of it, viz. O. intermedius, Sauss. The latter, besides differing completely from Ann. & Mag. N. Ilist. Scr. 7. Vol. xii.

aberraticus in general facies, size, and coloration, has no trace of the transverse crest near the base of the petiolo, which is so conspicuous in aberraticus, and which is generally thought, when occurring together with hook-tipped male antennæ, to mark a species as an Odynerus of the Ancistrocerus group. I am unable to follow De Saussure in considering the characters on which he founds Nortonia as generic, and must own that, personally, I regard intermedius, in spite of its peculiarities, as a Lionotus. At any rate, I cannot see my way to grouping aberraticus with it on the characters by

which the Eumenidæ are at present classified.

In its elongate thorax, quadrate (not transverse) scutellum, and depressed scarious margin to the second abdominal segment aberraticus shows considerable resemblance to a Microdynerus, but none of the latter, I believe, have the base of the petiole carinated as in Ancistrocerus. It has some likeness also in form and puncturation to certain Symmorphi, but from these, inter alia, the hooked male antennæ separate it instantly. It is utterly unlike any Eumenes except in the proportions of its basal abdominal segments. Altogether this is a very singular insect, and it is quite possible that I am wrong in assigning it to any of the recognized groups of Odynerus, though I feel little doubt as to its claim to a place in that genus.

Savigny has figured an Egyptian species ('Planches des Insectes, &c.' pl. viii. fig. 14) (=pharao, Sauss., according to v. Dalla Torre's Catalogue) which I thought at first might be the insect before me. But this cannot be so, if he has given correctly the contour of the second ventral abdominal segment in his species; for this, in the lateral view which he gives of it, is nearly flat, while in aberraticus it is turgid and convex (almost semicircularly so) to an extent which I

have never observed in any other Odynerus.

Stizus pæcilopterus, Handlirsch. 3.

"Goz Abba Goma, 14 ii. '01."

The above name is used by Handlirsch to denote the "Larra fasciata" of Klug, a species of Stizus differing from that which Fabricius originally described as "(Bembex)

fasciata" (= Stizus fasciatus, Handl.).

The male seems to be still undescribed. It closely resembles the female as described by Handlirsch, but the occiput, disc of mesonotum, and propodeum (segmentum mediale, Handl.) are black. The general ground-colour of the head and thorax (including antennæ, legs, &c.) is ferruginous red, that of the three apical abdominal segments has

a yellower tint (dark orange). The wings are coloured as in the female.

The ventral segments are simple. In the antennæ the last joint is moderately curved, narrowed to the apex, and obliquely truncated; it is hardly as long as the penultimate joint. The intermediate joints, especially 7 and 8, are somewhat flattened and dilated, widest in the middle of each joint (seen from above joints 7 and 8 are pentagonal). The third joint is about as long as the fourth and fifth together.

The sides of the thorax near the insertion of the abdomen run out into conspicuous blunt and fluttened (not spine-like) productions. In the tridentate apical ventral segment the middle spine is extremely long as compared with the two lateral ones, so that, without relaxing the insect and drawing this segment right out, one might almost mistake it for a

Sphecius.

Woking, Nov. 1903.

LXIII.—Notes on some Medusæ from Japan. By R. Kirkpatrick, F.Z.S.

[Plate XXXIII.]

A small collection of Medusæ made in the Inland Sea, Japan, by Mr. R. Gordon Smith was sent by him to the Natural History Museum. The specimens, eight in number, represent three genera and species; of these, one genus and one species have not hitherto been described. The following is a list of the species:—

Leptomedusæ: Gonomeandrus chrysostephanus, gen. et sp. n.

TRACHOMEDUSÆ: Gonionemus Agassizii, Murbach and Shearer.

DISCOMEDUSÆ: Aurelia aurita, Linn., var. japonica, Kishinouye.

LEPTOMEDUSÆ.

Family Cannotidæ, Haeckel.

Subfamily *Polyorchidæ*, A. Agassiz. Gonomeandrus*, gen. nov.

Polyorchidæ with four radial canals, each with an unbranched transversely meandrine proximal portion, situated on a gastric peduncle, and with a pinnately branched distal portion on the wall of the subumbrella, the branches ending

^{*} Μαίανδρος, the river Meander; γόνος, seed.